ThinkSystem SR655 Sets World Record with SAP SD Two-Tier Benchmark Result

Performance Benchmark Result

The Lenovo ThinkSystem SR655 server, using an AMD EPYC 7742 64-core processor running at 2.25 GHz, demonstrates best performance in the industry with the SAP SD 2-tier standard application benchmark.

Lenovo announces a world record result on Microsoft Windows for the two-tier SAP Sales and Distribution (SD) standard application benchmark.

The result was achieved on the Lenovo ThinkSystem SR655, configured with one AMD EPYC 7742 processor, using IBM Db2 10.5 and SAP enhancement package 5 for the SAP ERP application release 6.0.

Lenovo delivered the following certified result (1):

- **Number of SAP SD benchmark users: 31,650**

Throughput:

- Fully processed order line items per hour: 3,477,330
- Dialog steps per hour: 10,432,000
- SAPS: 173,870
- Average database request time (dialog/update): 7 ms / 16 ms

Configuration of the central server:

- Lenovo ThinkSystem SR655
- Processor: One AMD EPYC 7742 processor, 64 cores, 240W, 2.25 GHz core frequency
- Cache: 64 KB L1 cache and 512 KB L2 cache per core, 256 MB L3 cache per processor
- 512 GB main memory

Software platform:

- Operating system, central server: Microsoft Windows Server 2016 Datacenter
- RDBMS: IBM Db2 10.5
- SAP Business Suite software: SAP enhancement package 5 for SAP ERP 6.0

Results referenced are current as of September 30, 2019. For the latest SAP benchmark results, visit: https://www.sap.com/about/benchmark.html.

(1) This benchmark fully complies with the SAP Benchmark Council regulations and has been audited and certified by SAP SE, Certification number: 2019049. The benchmark was performed at the Lenovo Data Center Performance Lab in Research Triangle Park, NC, USA, by Lenovo engineers.

About the ThinkSystem SR655

The Lenovo ThinkSystem SR655 is a 1-socket 2U server that features the AMD EPYC 7002 "Rome" and AMD EPYC 7003 "Milan" families of processors. With up to 64 cores per processor and support for the PCIe 4.0 standard for I/O, the SR655 offers the ultimate in single-socket server performance. With up to 128 PCIe lanes, the server is ideal for workloads that can take advantage of GPU processing and high-performance NVMe drives.

ThinkSystem SR655 is a multi-GPU optimized rack server, with support for up to 6 single-wide GPUs providing 200% more workload acceleration in AI, SDI and VDI instances. Capacity for up to 32x 2.5” low-latency NVMe drives that pairs well with the demands of low-latency, high-bandwidth storage such as clustered SAN solutions and software-defined storage. Eight PCIe Gen4 slots offer 2x faster I/O and support for 16 DIMMs with 2TB of DDR4 memory capacity ensure the SR655 is ideal for high performance database applications.

About SAP SD

SAP SD benchmark is a test for standard sale and distribution business components on SAP ERP, which is indicative of the performance of the application and database on a specific hardware environment. For more information about the benchmark, go to https://www.sap.com/about/benchmark/appbm/erp.html.

Learn more

To learn more about SAP solutions on Lenovo servers visit the following page:
https://www.lenovo.com/us/en/data-center/solutions/sap/

To learn more about the Lenovo ThinkSystem SR655 server, visit the SR655 product web page:
https://www.lenovo.com/us/en/data-center/servers/racks/ThinkSystem-SR655-Server/p/77XX7SRSR75

Related product families

Product families related to this document are the following:

- 1-Socket Rack Servers
- IBM Alliance
- IBM Db2
- SAP Alliance
- SAP SD Benchmark Results
- ThinkSystem SR655 Server

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